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January 16, 2015

Mr. Peter Feneht, P.E.
Public Service Commission of Wisconsin
610 North Whitney Way
Madison, WI 53707-7854

Re: Madison Water Utility, Madison, Wisconsin (MWU) (Utility 3280)
Request for Authorization to Construct
Reservoir 113 Reconstruction

Dear Mr. Feneht:

We are writing to request authority to reconstruct the Madison Water Utility Lake View Reservoir (Reservoir 113). This request is submitted in accordance with the requirements of PSC 184.04.

In support of this request we have enclosed with this letter the following:

1. A copy of a project technical memorandum prepared in January 2014 by Short Elliot and Hendrickson for the Utility.
2. A copy of a water storage tank analysis prepared in October 2014 by Short Elliot and Hendrickson for the Utility.
3. A copy of a Wisconsin PSC project approval supporting documentation report dated January 16, 2015 prepared by Short Elliot and Hendrickson for the Utility.
4. The technical drawings set submitted to the Wisconsin Department of Natural Resources for approval and used for bidding.

A summary of our submittal follows.

1. Project Description – The proposed project will construct a two zone water storage reservoir within a single structure that will provide service to Pressure Zone 5 and

Pressure Zone 6E within the City of Madison water distribution system. The proposed reservoir will replace an existing 55,000 gallon reservoir constructed in 1938 that has reached the end of its useful life. The existing reservoir also does not meet current needs with regard to fire supply capacity and emergency water supply reserves.

The proposed reservoir will be constructed on the existing site. The upper reservoir will serve Pressure Zone 5 and will have a capacity of 300,000 gallons. The lower reservoir will serve the north end of Pressure Zone 6E and will have a capacity of 1,000,000 gallons. The reservoir will be painted welded steel construction.

A location map is included in the project technical drawings.

There are no floodplains impacted by this project.

2. Purpose and Necessity – The 2006 MWU Water Master Plan and the 2012 East Side Water Supply Project both identified a need for additional storage capacity in Pressure Zones 5 and 6E. The existing 55,000 gallon reservoir serving Zone 5 does not provide either adequate fire fighting reserves or the required emergency water supply storage capacity.

The two reports also identified a significant need for additional water storage in the north end of Pressure Zone 6E. Construction of a 1,000,000 gallon water storage reservoir in Zone 6E will stabilize pressures, provide additional fire fighting reserves, and provide emergency reserve supply. This improvement will help the MWU water system meet stated levels of service for the area for fire fighting and emergency supply.

3. Effect of the Project on Quality and Reliability of Service – Both of the proposed water reservoirs will feed the system by gravity. The volume of water storage available to the system will significantly improve system reliability, redundancy and fire protection capacity. Providing water storage that feeds the system via gravity ensures that the supply will be uninterrupted during emergency situations.

Reservoir 113 is a critical water supply facility for the north side water supply system for the City of Madison.

4. Brief Description and Analysis of the Alternatives to the Project – The attached engineering report itemizes the alternatives considered to the proposed project. Given the developed nature of the neighborhood around the existing tank, the height

restrictions imposed by the Dane County Regional Airport, and limited topography, the available alternatives considered for this project did not meet project requirements or objectives.

5. Cost of the Project by Major Plant Accounts – The current budget for project construction is \$5,500,000. Of that total, engineering and administrative costs are expected to be about \$300,000. A breakdown of the project costs per major plant account is included in the attached report.
6. Proposed Method of Financing the Project – The project will be financed through revenue bonds.
7. The Estimated Annual Operating Costs – The levelized annual operating cost for the reservoir system is estimated to be \$50,000 per year. This cost is primarily due to repainting requirements every 20 years for a steel reservoir over the life of the facility.
8. Description of and Original Cost of any Property being Replaced by Major Plant Accounts – The existing reservoir was constructed in 1938 and has been fully depreciated. There is no non-depreciated equipment being replaced by the proposed project.
9. Designation of Public Utilities and Other Persons Materially Affected by the Project and a List of Those Who Have Been Notified – Madison Water Utility and its customers will benefit from this project. MWU rate payers will finance this project through the Utility's rate structure established by the PSC. The project was identified in the 1999 Water Master Plan, the 2006 Water Master Plan, and the 2012 East Side Water Supply Project. All of these plans were considered and approved by the Water Utility Board and this project has been included in the Utility Capital Improvement Program.

Madison Water Utility has conducted a comprehensive public participation process in the development of this project. Throughout conceptual development of the project, Utility staff conducted multiple public meetings to evaluate alternatives, consider neighborhood concerns, minimize impact on the park, and work closely with Dane County. MWU established a Citizen's Advisory Panel (CAP) for the project of interested citizens and neighborhood groups. The Alder for the area was involved with the process throughout. The culmination of this process was a public hearing before the Water Utility Board with a recommendation to proceed with the project as a dual reservoir in a single structure. The Water Utility Board approved that

recommendation and the project moved to final design and the preparation of bidding documents. Bids for the project were received in September 2014 and the Utility is working through the approval process for the project.

The project was reviewed and approved by the Madison Urban Design Commission, the FAA, and the City Plan Commission. Public presentations, public hearings, and other discussions were a part of each of these approvals.

We trust that this information will meet with your approval and we look forward to your favorable review of our application. Please contact me at 608-266-4653 or alarson@madisonwater.org if you have any questions or need additional information.

Sincerely,

MADISON WATER UTILITY



Alan L. Larson, PE, BCEE
Principal Engineer

Enclosures

c: Mr. Jon Strand, PE – SEH Inc
Mr. Mike Krentz – Water Utility Finance Manager
Mr. Tom Heikkinen, GM